## PATENT ABSTRACTS OF JAPAN

(11)Publication number:

11-050175

(43) Date of publication of application: 23.02.1999

(51)Int.CI.

C22C 9/00 C22C 1/02

(21)Application number : **09-203470** 

(71)Applicant: OSAKA GOKIN KOGYOSHO:KK

(22)Date of filing:

29.07.1997

(72)Inventor: MORIMUNE FUMIO

SAEKI SHINJI

TANIGUCHI HIROYASU

## (54) TITANIUM-COPPER MASTER ALLOY FOR ADDITION TO TITANIUM-CONTAINING COPPER ALLOY AND ITS PRODUCTION

## (57) Abstract:

PROBLEM TO BE SOLVED: To obtain a Ti-Cu master alloy for addition to a Ti-contg. copper alloy free from the generation of fracture, disconnection, defects in punching or the like in cold working or the like by allowing the alloy to have a compsn. contg. Ti, a small amt. of P or Mg, and the balance Cu with inevitable impurities, in which titanium oxynitride or titanium carbonitride is not contained, or even in the case it is contained, the grain size thereof is regulated to a specified value or below. SOLUTION: The Ti-Cu master alloy is produced by melting a copper raw material such as electrolytic copper, adding a small amt. (0.1 to 0.5 mass %) of P or Mg to the molten copper and thereafter adding 10 to 30 mass % Ti thereto. In this way, the master alloy in which Ti, P or Mg is contained in the above containing ratio can be obtd. P and Mg have deoxidizing operation, and in the case of being added to the copper molten metal, they reduce the oxygen concn. in the molten metal and suppress the formation of titanium oxynitride of maximum several tens um size, where, by C and N contained by small quantity in Ti charged to the molten metal, titanium carbonitride of  $3 \mu m$  is produced by small quantity, but, there occurs no troubles in particular.

## LEGAL STATUS

[Date of request for examination]

Date of sending the examiner's decision of rejection]

Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection

Date of requesting appeal against examiner's decision of rejection]